

(Diptera), (Insecta), (Chironomidae) *flaviplumus*가 , (*Chironomus*
 , , , , , ,
 , , , ,
 ,
 1,2) .
 2-4 가 1.
 가
 1970 .
 3) .
 10,000 가
 500 가 50
 .
 , 가
 가
 .
 Chironomus yoshimatsui,
Chironomus plumosus, *Tokunagayasurika akamushi*
 가 4) .
 (*Chironomus kiiensis*)
 Cladotanytarsus lewisi 가
 6,7) ,
 8-11) . Baur
(1980)¹²⁾ 가 *Chi-*
ronomus thummi
 , Kagen (1984)¹³⁾
 .
 C. plumosus
 . Igarashi (1987)¹⁴⁾
 Toyama 119
 , *Polypedilum kyotoensis*, *C.*
yoshimatsui Tokunagayusurika akamu-
shi 23.5%, 17.6% 7.6%

, Toshiya
 (1987)¹⁵⁾ Kyoto 56
 32 (57.1%) *C. yoshimatsui*
 . Murakami
 (1988)¹⁶⁾ 10 697
 27.4%가 *C. plumosus*
 , Ishii
 (1988)¹⁷⁾ 16.3%가 *C.*
yoshimatsui
 Brasch (1992)¹⁸⁾
 . Kimura
 (1990)¹⁹⁾
 15-16 kDa, 30-32 kDa
 가
 class
 (Liebers et al.,
 1998)²⁹⁾
 (Tautz et al., 1994)가
 , T cell epitope B cell epitope
 (van Kampen et al., 2001)³¹⁾
 .
 가 . Park
 (1991)²¹⁾ *C. plumosus* *T. akamushi*
 2
 , Kim Park (1994)²²⁾ 2)
 475 20.4%
 20.6%가 2 가
 가
 가
 23)
 가
 Kawai Konishi(1988)³²⁾
 P-K
 15-18 kDa 가
 ,
 . Prelicz (1986)³³⁾
Camptochironomus tentans
 2.
 1)
 , Mazur (1987)³⁴⁾ Matu-
 soka (1988)³⁵⁾
 .
 . Baur (1982)²⁴⁾
Chironomus thummi thummi 가

3)
(Schin
, 1974)³⁶⁾. Matsuoka (1988)³⁵⁾ (Fig. 1)
BALB/c
cDNA expression
library
,
, *C. yoshi-*
matsui
10 76% IgE ().
500 kDa 가 275
vitellogenin 14.2%
(Matsuoka , 1990)³⁷⁾. Kawai
Konishi (1988)³⁸⁾ 855 bp open reading frame
가 , 32.5 kDa,
pH 4.58 , 285
P-K
.
van Kampen (1994)³⁹⁾ (229) 가
(17) (92)
40% 가
Crictopus sylvestris
,
.
Chi t 1
10.9%, *C. sylvestris* 29.4%
(International Union of Immuno-
.
C. sylvestris
가
가 가
Ree (1996)⁴⁰⁾
,
15, 35, 52 65 kD 4
,
Yong (1999)⁴¹⁾ 110, 80, 73, 46, 40,
37, 34, 31 kDa
.



Fig. 1. *Chironomus kiiensis*, a dominant species of non-biting midges in Korea.

logical Societies) (Allergen Nomenclature Sub-Committee)

, Chi k 10
⁴²⁾, Chi t 1
 Chi t 9 C. th-
 ummi thummi

15%

(anisa-
 kis)

pan-allergen
 (Reese et al, 1999)⁴⁸⁾.

immunoblot (*Sinella cur-
 viseta*)
 (*Bombyx mori*)

(Fig. 2).

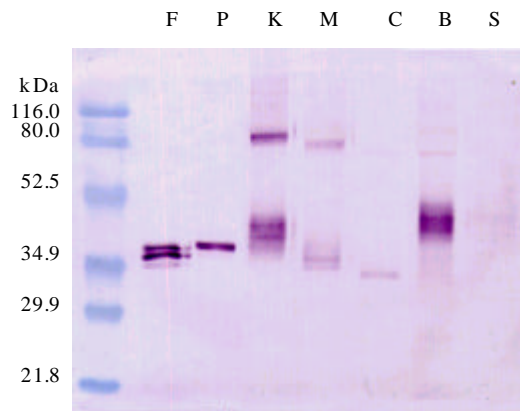


Fig. 2. Cross-reactivity of tropomyosins. Crude extracts of various arthropods were run onto a SDS-polyacrylamide gel and immunoblotted using mouse sera immunized with a recombinant tropomyosin of *C. kiiensis*. Lane: F: *Dermatophagoides farinae*, P: *Dermatophagoides pteronyssinus*, K: *Chironomus kiiensis*, M: *Musca domestica*, C: *Culex tritaeniorhynchus*, B: *Bombyx mori*, S: *Sinella curviseta*.

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